

2011  
( MAY/JUNE )  
**SYSTEM ANALYSIS AND DESIGN**  
**COURSE NO. 402**  
**Full Mark:75**  
**Time : 3 Hours**

(Part: B-Descriptive)  
(Marks: 50)

Answer the following questions:

1. What is System Analysis? Describe the different types of users. (10)

OR

What is System Design? Explain the Categories of Information System. (10)

2. Describe Systems Development Life Cycle with diagram? (10)

OR

(a) What is the difference between Physical and Logical Data Flow Diagram (DFD)? (4)

(b) Explain the three techniques of fact finding? (6)

3. What is CASE? Describe the four benefits of Computer Assisted Tools? (10)

OR

- (a) What are the objectives of Output? Write the types of Output? (6)
- (b) How to present information in Output form? (4)

4. Define Quality Assurance? Explain the level of Quality Assurance. (10)

OR

What is Conversion? Describe the four methods of handling a system conversion. (10)

5. Write the Data Flow Diagram and Database Design of Payroll System? (10)

OR

Write the Data Flow Diagram and Database Design of Billing System? (10)

IV/BCA/402

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(Part: A-Objective)  
(Marks: 25)

*The figures in the margin indicates full marks for the question.*

Choose the correct answer: (1x10=10)

(a) The process of gathering and interpreting facts, diagnosing problems, and using the information to recommend improvements to the system.

- |       |                  |         |
|-------|------------------|---------|
| (i)   | System Design    | (     ) |
| (ii)  | System Analysis  | (     ) |
| (iii) | Structure Design | (     ) |
| (iv)  | Prototype        | (     ) |

(b) A matrix of rows and columns that shows conditions and actions.

- |       |                   |         |
|-------|-------------------|---------|
| (i)   | Structure English | (     ) |
| (ii)  | Decision Tree     | (     ) |
| (iii) | Decision Rule     | (     ) |
| (iv)  | Decision Table    | (     ) |

(c) Analysts can gain information they cannot obtain by any other fact-finding method.

- |       |               |   |   |
|-------|---------------|---|---|
| (i)   | Interview     | ( | ) |
| (ii)  | Questionnaire | ( | ) |
| (iii) | Record Review | ( | ) |
| (iv)  | Observation   | ( | ) |

(d) Systems that interact with their environment.

- |       |              |   |   |
|-------|--------------|---|---|
| (i)   | Open System  | ( | ) |
| (ii)  | Close System | ( | ) |
| (iii) | Standard     | ( | ) |
| (iv)  | Feedback     | ( | ) |

(e) Any information produced by an information system.

- |       |               |   |   |
|-------|---------------|---|---|
| (i)   | Input Design  | ( | ) |
| (ii)  | Output Design | ( | ) |
| (iii) | Form Design   | ( | ) |
| (iv)  | Code Design   | ( | ) |

(f) A method aimed at detecting errors in input.

- |       |                        |   |   |
|-------|------------------------|---|---|
| (i)   | Transaction Validation | ( | ) |
| (ii)  | Sequence Test          | ( | ) |
| (iii) | Input Validation       | ( | ) |
| (iv)  | Automatic Correction   | ( | ) |

(g) A design aid and documentation technique for representing the modules of a system as a hierarchy developed by IBM.

- |       |                       |     |
|-------|-----------------------|-----|
| (i)   | HIPO                  | ( ) |
| (ii)  | Structure Flowchart   | ( ) |
| (iii) | Warnier / Orr Diagram | ( ) |
| (iv)  | Structure English     | ( ) |

(h) It determine the capacity of the system to store transaction data on a disk or in other files.

- |       |                   |     |
|-------|-------------------|-----|
| (i)   | Peak load testing | ( ) |
| (ii)  | Recovery testing  | ( ) |
| (iii) | Storage testing   | ( ) |
| (iv)  | Proccdure testing | ( ) |

(i) A graphic tool used to describe and analyze the movement of data through a system-manual including the processes, stores of data , data flow , source and destination.

- |       |                     |     |
|-------|---------------------|-----|
| (i)   | Data Flow Diagram.  | ( ) |
| (ii)  | Data Dictionary.    | ( ) |
| (iii) | Data Flow Analysis. | ( ) |
| (iv)  | Decision Table.     | ( ) |

(j) Analysts used C language programming style to identify the condition that occur in a process, decision that must be made when the condition occur and alternative action to take.

- |       |                   |     |
|-------|-------------------|-----|
| (i)   | Decision Tree     | ( ) |
| (ii)  | Structure English | ( ) |
| (iii) | Decision Table    | ( ) |
| (iv)  | DFD               | ( ) |

**II. State whether True or False**

(1x5=5)

(c)

- (i) System is a set of components that interact to accomplished some purpose.  
( T / F )
- (ii) A prototype is a working system that is develop to test ideas and assumptions about the new system.  
( T / F )
- (iii) Input Design is a document that sets rules for the design of a new development.  
( T / F )
- (iv) Training refers to the acquisition of knowledge, skills, and competence.  
( T / F )
- (v) Back-end tools analysis automate the early activities in the systems development process.  
( T / F )

5)

e

**III. Answer the following questions:**

**(2x5=10)**

a. What is Decision Support System ?

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b. Write the four notation of Data Flow Diagram ?

stems

(c)

c. What is Code design?

d. Explain Warnier/Orr diagram ?



- e. Draw the form design of Financial Accounting System at least four(4) forms.